REMARKS

Claims 13-27, 34-47, and 50-56 will be pending upon entry of the present amendment. Claims 26, 27, and 45-47 are amended. Claims 53-56 are newly presented.

Claims 26 and 27 have been amended to correct a minor dependency error. Claims 45 and 46 have been amended to correct a typographical error. Claim 47 has been placed to independent form.

Applicants thank the Examiner for indicating the allowability of claims 13-27 and 34-47, and of the subject matter of claims 51 and 52.

The Examiner has rejected claim 50 under 35 U.S.C. § 103(a) as being unpatentable over Shaw et al. (U.S. Patent No. 5,610,335, hereafter "Shaw '335") in view of Shaw et al. (U.S. Patent No. 5,847,454, hereafter "Shaw '454"). Applicants respectfully traverse this rejection.

Claim 50 recites, in part, "means for detecting contact between the second portion of the beam and a wall of the trench." Neither Shaw '335 nor Shaw '454 teach or suggest such a detecting means. Accordingly, a combination of these references cannot teach or suggest such.

In the recent Office Action, the Examiner states that "claim 23 of Shaw '454 discloses the detection structure." This is not the case. Shaw '454's claim 23 recites "sensor means in said trench for detecting *motion* of said beam," (emphasis added), while claim 50 of the present application recites means for detecting *contact*.

Motion detection is not directly analogous to contact detection. Clearly, it is possible for Shaw's beam to move without making contact with a trench wall. It is evident from a review of Shaw '454 that all the sensor means disclosed in the specification are directed to *capacitive* sensing structures. This is disclosed at many locations in the specification, and is clearly described, for example, in the paragraph beginning at column 14, line 6:

> The metal layer 78 on the electrodes 56 and 58 includes vertical side wall portions which cooperate with the side wall portions of the metal layer 78 on released beam 52 to produce the parallel plates of capacitors. When the two electrodes 56 and 58 are located in close proximity to the beam 52, the capacitance therebetween, which is a function of distance, can be measured. Therefore, any movement of the beam 52 with respect to beams 56 and 58 can be accurately measured. The side wall parallel plates can be in the range of 10 to 20 .mu.m tall, depending on the height of the beam 52, and can have 1 to 2 .mu.m of interplate

> spacing. The beam and electrodes can be several thousands of microns in length, so that a large capacitance can be provided. Such a structure has an important use as an accelerometer by measuring relative motion of the released beam with respect to the stationary electrodes.

Shaw '454 column 14, lines 6-22. Capacitive sensing structures that operate as described above are well known in the art. Such a structure relies on the capacitor formed by the "close proximity" of two conductive plates. As the distance between the plates changes, so too does the capacitance. Accordingly, a circuit configured to measure the variation in capacitance can be use to detect movement of the beam, and also the degree of movement. However, as is also known in the art, a capacitor requires a dielectric between its conductive plates. In the present case, the sensor capacitor formed by a side wall of the beam and a side wall of an electrode has an air-gap dielectric such as is very well known in the art (see Figures 2 and 3). If the beam were to actually touch the side wall, the capacitor would short out, which, at the very least, would cause the associated circuit to malfunction; at the worst, it would destroy the circuit. From the point of view of a user or receiving circuit, only a malfunction would be detected, not a contact.

Finally, there is no suggestion in either Shaw reference that detection of contact would be desirable. The devices described in these references require a range of detection. For example, the accelerometer described in the cited passage above measures a range of relative motion in order to detect a range of acceleration. Even if it were configured to tolerate contact between the beam and trench (which it is not), if it made contact with the trench, it would be incapable of measuring any degree of acceleration that exceeded the degree necessary to cause the contact. There is nothing in either reference that suggests that such a configuration would be of any use.

For at least the reasons outlined above, claim 50 is allowable over the cited art.

New claims 53-56 are resubmissions of claims 48, 49, 32, and 33, respectively. These claims were originally withdrawn in response to a previous Restriction Requirement, then cancelled in the most recent amendment. However, as indicated in a previous filing, claim 50 is a linking claim that, if allowed, allows rejoinder of the previously withdrawn claims. Regarding linking claims, the MPEP states, "[i]f applicant elects a claim(s) directed to a product which is subsequently found allowable, withdrawn process claims which depend from or otherwise

require all the limitations of an allowable product claim will be considered for rejoinder...." MPEP § 821.04(b).

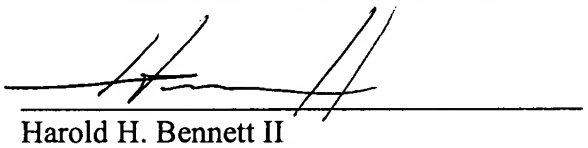
Inasmuch as claim 53 requires all the limitations of claim 50, claim 53 should be rejoined upon a finding of allowability of claim 50, as requested above.

All of the claims in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited. In the event the Examiner finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact applicant's undersigned representative at 206-694-4848 in order to expeditiously resolve prosecution of this application.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



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